Amendments to the Claims

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1(Currently Amended). An isolated tumor associated antigen (TAA) peptide of eight to ten amino acid residues, which is capable of promoting effective binding to a MHC class I molecule to elicit a CTL response and which

is ~~obtainable from a protein~~ encoded by a polynucleotide overexpressed in human colon carcinoma cells ~~with the proviso that the protein is not a six transmembrane epithelial antigen of the prostate (STEAP) protein~~, which polynucleotide is selected from the group consisting of human defensin 6 gene, human ADP/ATP translocase gene, human parathymosin gene, human 1-8U interferon inducible gene, human chaperonin-like protein gene, human SPARC/osteonectin gene, human 1-8D interferon inducible gene, human TB2 gene, human alpha-1 collagen gene, human mRNA for dipeptidase, fibronectin gene, actin binding protein gene, HCG IV mRNA, HLA-DR antigens associated invariant gamma chain gene, MHC class I HLA-C.1 gene, polyA binding protein gene, transforming growth factor-beta induced gene, human mRNA for laminin-binding protein, human mRNA sequence gene, insulin like growth factor II gene, human ribosomal protein L23a mRNA, human acidic ribosomal phosphoprotein P1 gene, human liver mRNA fragment DNA binding protein UPI gene, ribosomal protein L37 gene, human MHC protein homologous to chicken B complex gene and HB23 gene for B23 nucleophosmin,

wherein said peptide optionally includes ~~at least~~ one ~~non-natural modification~~ amino acid substitution.

Claims 2 and 3(Cancelled).

4(Previously presented). The peptide of claim 1, wherein said protein is encoded by a polynucleotide coding sequence of human 1-8D interferon inducible gene.

5(Previously presented). The peptide of claim 4, wherein said polynucleotide coding sequence comprises nucleotides 31-426 of SEQ ID NO:58.

6(Previously presented). The peptide of claim 4, wherein said polynucleotide coding sequence comprises SEQ ID NO:60.

7(Previously presented). The peptide of claim 4 which has the amino acid sequence of SEQ ID NO:27.

Claims 8-11 (Cancelled).

12(Previously presented). The peptide of claim 1, wherein said MHC class I molecule is HLA-A2.1.

13(Currently Amended). The peptide of claim 1, which includes ~~at least~~ one ~~non-natural modification~~ amino acid substitution.

Claim 14 (Cancelled).

15(Previously presented). A composition, comprising a pharmaceutically acceptable carrier, excipient, diluent or auxiliary agent and at least one peptide of claim 1.

16(Previously presented). The composition of claim 15, further comprising a helper peptide.

17(Previously presented). The composition of claim 16, wherein said helper peptide contains a T helper epitope.

Claims 18-20 (Cancelled).

21(Previously presented). The composition of claim 15 which is a cell composition, wherein the pharmaceutically

acceptable carrier is an antigen presenting cell which presents said at least one peptide.

22(Previously presented). The composition of claim 21, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a B cell, and a fibroblast.

23(Previously presented). The composition of claim 22, wherein said antigen presenting cell is caused to present said at least one tumor associated antigen peptide by a method selected from the group consisting of:

(A) genetically modifying said antigen presenting cell with at least one polynucleotide encoding said at least one tumor associated antigen peptide such that said peptide or at least one polypeptide which comprises said peptide is expressed;

(B) loading said antigen presenting cell with at least one polynucleotide encoding said at least one tumor associated antigen peptide;

(C) loading said antigen presenting cell with said at least one tumor associated antigen peptide; and

(D) loading said antigen presenting cell with at least one polypeptide comprising said at least one tumor associated antigen peptide.

24(Withdrawn). A method for treating or for inhibiting the development of colon cancer, comprising administering an effective amount of the composition of claim 15 to a patient in need thereof to treat or inhibit the development of colon cancer.

25(Withdrawn). The method of claim 24, wherein said composition is a vaccine composition.

26(Withdrawn). An isolated polynucleotide encoding at least one peptide of claim 1.

27(Withdrawn). The polynucleotide of claim 26, which further encodes a fused protein product from which said at least one peptide is cleavage by a protease.

28(Withdrawn). A composition, comprising the polynucleotide of claim 26 and a pharmaceutically acceptable carrier, excipient, diluent, or auxiliary agent.

29(Withdrawn). The composition of claim 28, which is a vaccine composition.

30(Currently amended). A composition, comprising a pharmaceutically acceptable carrier, excipient, diluent, or auxiliary agent, and a member which is:

(A) at least one 8-10 residue TAA peptide of a tumor associated antigen (TAA) of SEQ ID NO:59 or SEQ ID NO:61, with or without ~~at least~~ one ~~non-natural modification~~ amino acid substitution; or

(B) a polynucleotide encoding at least one peptide of (A), wherein said at least one 8-10 residue TAA peptide is capable of promoting effective binding to a MHC class I molecule to elicit a CTL response.

Claims 31-35 (Cancelled).

36(Currently amended). The composition of claim 30, wherein said TAA peptide includes ~~at least~~ one ~~non-natural modification~~ amino acid substitution.

Claim 37 (Cancelled).

38(Previously presented). The composition of claim 30, further comprising a helper peptide.

39(Previously presented). The composition of claim 38, wherein said helper peptide contains a T helper epitope.

Claims 40-42 (Cancelled).

43(Previously presented). The composition of claim 30 which is a cell composition, wherein the pharmaceutically acceptable carrier is an antigen presenting cell which presents said at least one peptide.

44(Previously presented). The cell composition of claim 43, wherein said antigen presenting cell is selected from the group consisting of a dendritic cell, a macrophage, a B cell, and a fibroblast.

45(Previously presented). The composition of claim 44, wherein said antigen presenting cell is caused to present said at least one tumor associated antigen peptide by a method selected from the group consisting of:

(A) genetically modifying said antigen presenting cell with at least one polynucleotide encoding said at least one tumor associated antigen peptide such that said peptide or at least one polypeptide which comprises said peptide is expressed;

(B) loading said antigen presenting cell with at least one polynucleotide encoding said at least one tumor associated antigen peptide;

(C) loading said antigen presenting cell with said at least one tumor associated antigen peptide; and

(D) loading said antigen presenting cell with at least one polypeptide comprising said at least one tumor associated antigen peptide.

46(Withdrawn). The composition of claim 30, wherein said member is a polynucleotide comprising the coding sequence of human 1-8D interferon inducible gene.

Claims 47-50 (Cancelled).

51(Withdrawn). The composition of claim 30, wherein said member is a polynucleotide encoding at least one TAA peptide of (A).

52(Withdrawn). The composition of claim 51, wherein said polynucleotide is an expression vector capable of expressing in a human host said at least one TAA peptide.

53(Withdrawn). The composition of claim 51, which is a vaccine composition.

54(Withdrawn). A method for treating or for inhibiting the development of colon cancer, comprising administering an effective amount of the composition of claim 30 or a composition comprising a pharmaceutically acceptable carrier, excipient, diluent, or auxiliary agent and a member which is either a tumor associated antigen (TAA) encoded by a human 1-8D interferon inducible gene or a polynucleotide comprising the coding sequence of a human 1-8D interferon inducible gene to treat or inhibit the development of colon cancer.

55(Withdrawn). The method of claim 54, wherein said composition is a vaccine composition.

56(Withdrawn). The method of claim 54, wherein the colon cancer is a carcinoma.

57(Withdrawn). A method for treating or for inhibiting the development of colon cancer, comprising administering to a patient in need thereof a molecule which includes the antigen-binding portion of an antibody specific for the human 1-8D interferon induced transmembrane protein 2 to treat or inhibit the development of colon cancer in the patient.

58(Withdrawn). A method for determining overexpression of human 1-8D interferon induced transmembrane protein 2 in human colon cells, comprising:

contacting a sample of colon cells from a patient with a molecule which includes the antigen-binding portion of an antibody specific for human 1-8D interferon induced transmembrane protein 2; and

detecting binding of the molecule to the colon cells and determining the level of expression of human 1-8D interferon induced transmembrane protein 2 by the colon cells from the patient sample.

59(Previously presented). An isolated polypeptide comprising the amino acid sequence of SEQ ID NO:61.

60(Withdrawn). An isolated polynucleotide encoding the polypeptide of claim 59.

61(Withdrawn). The polynucleotide of claim 60, comprising the nucleotide sequence of SEQ ID NO:60.

62(Currently amended). The peptide of claim 1, which does not include ~~at least~~ one ~~non-natural modification~~ amino acid substitution.

63(Previously presented). The peptide of claim 4 which has the amino acid sequence of SEQ ID NO:11.

64(Previously presented). The peptide of claim 4 which has the amino acid sequence of SEQ ID NO:25.

65(New). The peptide of claim 1, which has the amino acid sequence of SEQ ID NO:16.

66(New). The peptide of claim 1, which has the amino acid sequence of SEQ ID NO:20.

67(New). The peptide of claim 1, which has the amino acid sequence of SEQ ID NO:21.

68(New). The peptide of claim 1, which has the amino acid sequence of SEQ ID NO:22.